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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/880,506 | 06/13/2001 | Donald K. Jones | CRD0935 | 5338 |

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| EXAMINER |
|---|
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| ART UNIT | PAPER NUMBER |
|---|---|
| 3743 | 5 |

DATE MAILED: 07/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/880,506 | JONES ET AL. | |
| | Examiner | Art Unit | |
| | Kathryn Ferko | 3743 | |

*-- The MAILING DATE of this communication appears on the cover sh et with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *13 June 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2, 4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 9, 11, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Plowiecki in FR2696636.

Plowiecki discloses a method for occluding the vasculature of a patient via providing a plurality of embolic coils having a textured surface; introducing the plurality of embolic coils into the patient's vasculature, whereby the textured surface provides improved platelet adhesion compared to a non-textured surface, to promote clotting, as stated in the abstract and seen in figure 1; embolic coils that are used to reduce or block blood flow to an arterial-venous malformation or to a fistula, as seen in figure 1; a method for treating an aneurysm of a patient via providing a plurality of embolic coils having a textured surface; introducing the plurality of embolic coils into the patient's aneurysm, whereby the textured

surface provides improved platelet adhesion compared to a non-textured surface, to promote clotting; and an embolic coil formed of wire having a textured surface which, when the embolic coil is implanted in a patient's vasculature, provides improved platelet adhesion compared to a non-textured surface to promote clotting, as stated in the abstract.

3. Claims 1, 8, 9, 11 and 21 are rejected under 35 U.S.C. 102(a and/or e) as being anticipated by Jacobsen et al. in US Patent No. 6,530,934.

Jacobsen et al. disclose a method for occluding the vasculature of a patient via providing a plurality of embolic coils having a textured surface; introducing the plurality of embolic coils into the patient's vasculature, whereby the textured surface provides improved platelet adhesion compared to a non-textured surface, to promote clotting, as recited in column 4, lines 48-65; coils that are used to embolize a vessel for vessel sacrifice, as recited in column 3, lines 55-67; embolic coils that are used to reduce or block blood flow to an arterial-venous malformation or to a fistula, as recited in column 3, lines 55-67; a method for treating an aneurysm of a patient via providing a plurality of embolic coils having a textured surface; introducing the plurality of embolic coils into the patient's aneurysm, whereby the textured surface provides improved platelet adhesion compared to a non-textured surface, to promote clotting, as recited in columns 3 and 4; and an embolic coil formed of wire and having a textured surface which, when the embolic coil is implanted in a patient's vasculature,

provides improved platelet adhesion to a non-textured surface, to promote clotting, as recited in columns 3 and 4.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2-8, 10, 12-20 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable Plowiecki in FR2696636.

Plowiecki discloses the invention with the exception of explicitly reciting texturing the surface of an embolic coil by abrasion; texturing the surface of an embolic coil by sandblasting; an embolic coil that is a platinum-tungsten alloy wire; an embolic coil that includes a proximal portion and a distal portion where the proximal portion is relatively smooth and the distal portion is relatively textured; an embolic coil that has substantially uniform roughness pockets having diameters between about 0.125 microns and about 50 microns; pockets that have depths of between about 0.25 microns and about 20 microns; embolic coils are that are used to embolize a vessel for vessel sacrifice; and embolic coils that are used to block blood flow to tumor.

On the other hand, texturing the surface of an embolic coil by abrasion and texturing the surface of an embolic coil by sandblasting would be obvious to one with ordinary skill in the art as known methods to texture a surface. The

specification of the current application does not demonstrate the criticality to abrasion or sandblasting. Therefore, to roughen the surface via abrasion or sandblasting in the claimed configuration or via any other roughening technique would have been obvious to one with ordinary skill in the art. Furthermore, it would have been obvious to one with ordinary skill in the art to modify the invention of Plowiecki to have the coil that made of platinum-tungsten alloy wire. Again, the specification of the current application does not demonstrate the criticality for a platinum-tungsten alloy wire. Therefore, the wire of Plowiecki can be considered an equivalent since the function of promoting rapid clotting is achieved. Moreover, an embolic coil that includes a proximal portion and a distal portion where the proximal portion is relatively smooth and the distal portion that is relatively textured; an embolic coil that has substantially uniform roughness pockets having diameters between about 0.125 microns and about 50 microns; pockets that have depths of between about 0.25 microns and about 20 microns; embolic coils are that are used to embolize a vessel for vessel sacrifice; and embolic coils that are used to block blood flow to tumor are within the scope of the invention and the roughened surface would fall in the range claimed.

6. Claims 2-7, 10, 12-20 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen et al. in US Patent No. 6,530,934

Jacobsen et al. disclose the invention with the exception of explicitly reciting texturing the surface of an embolic coil by abrasion; texturing the surface of an embolic coil by sandblasting; an embolic coil that is a platinum-tungsten

alloy wire; an embolic coil that includes a proximal portion and a distal portion where the proximal portion is relatively smooth and the distal portion being relatively textured; an embolic coil that has substantially uniform roughness pockets having diameters between about 0.125 microns and about 50 microns; pockets that have depths of between about 0.25 microns and about 20 microns; and embolic coils that are used to block blood flow to tumor.

On the other hand, texturing the surface of an embolic coil by abrasion and texturing the surface of an embolic coil by sandblasting would be obvious to one with ordinary skill in the art as known methods to texture a surface. The specification of the current application does not demonstrate the criticality to abrasion or sandblasting. Therefore, to roughen the surface via abrasion or sandblasting in the claimed configuration or via any other roughening technique would have been obvious to one with ordinary skill in the art. Furthermore, it would have been obvious to one with ordinary skill in the art to assure the invention of Jacobsen et al. to have the coil made of platinum-tungsten alloy wire. Again, the specification of the current application does not demonstrate the criticality for a platinum-tungsten alloy wire. Jacobsen et al. disclose the use of platinum alloys in column 4, lines 30-35, wherein platinum-tungsten falls within the scope of a platinum alloy. Moreover, an embolic coil that includes a proximal portion and a distal portion where the proximal portion is relatively smooth and the distal portion is relatively textured; an embolic coil that has substantially uniform roughness pockets having diameters between about 0.125 microns and

about 50 microns; pockets that have depths of between about 0.25 microns and about 20 microns; and embolic coils that are used to block blood flow to tumor are within the scope of the invention and the roughened surface would fall in the range claimed.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are as follows: US2001/0044629; US Patent No. 6,165,198; US Patent No. 5,964,797; and US Patent No. 5,960,671.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathryn Ferko whose telephone number is (703) 306-3454. The examiner can normally be reached on M-F (7:30-5:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry A Bennett can be reached on (703) 308-0101. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Henry Bennett
Supervisory Patent Examiner
Group 3700

KF
July 14, 2003